Our ref: KON-1807 Client's ref: P6179-001-0000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of: H. YANAGISAWA : Art Unit: 1752

Serial No. : 10/631,910 :

Examiner: T. Chea

Filed : July 31, 2003 :

Title : THERMALLY DEVELOPABLE PHOTOSENSITIVE MATERIAL AND IMAGE FORMING METHOD :

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DECLARATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

S i r:

I, Hiroyuki Yanagisawa, hereby declare and say as follows:

1. I presented the Declarations dated August 2, 2006, January 18, 2006, and December 21, 2004 in this application.

2. I am aware that the Examiner has rejected this application based on either Nishijima '101 (EP 1278101), Nishijima '649 (U.S. 6,699,649), or PS '266 (GB 1543266) in view of Yoshioka (U.S. 6,413,712). I am also aware that the Examiner has rejected this application based on Oya (U.S. 6,376,166) in view of Yoshioka. Tests have been performed and are reported herein to demonstrate that a superior image is produced when a) a light-sensitive material has a reducing agent of Formula (A-1), a reducing agent of Formula (A-3) and a compound of Formula (A-4); and b) when the coefficient of determination R^2 is from 0.998 to 1.000. These tests were performed by myself or under my direct supervision and control.

3. Comparative Sample A was prepared in accordance with sample 110 of Table 2 in col. 83 of Nishijima '649 as described in col. 81, lines 63-67 of Nishijima '649. Comparative Sample A contained 27.98 g of developing agent 1-24 (col. 80, lines 9-11 of Nishijima '649) appearing in col. 27 of Nishijima '649. Developing agent 1-24 falls within the scope of Formula (A-1) of the present invention. Comparative Sample A therefore contained a reducing agent of Formula (A-1), but no reducing agent of Formula (A-3) or compound of (A-4).

4. Inventive Sample B was prepared similar to Comparative Sample A, except that 4.20 g from the total 27.98 g of developing agent 1-24 was replaced by 4.20 g of developing agent 1-3 appearing in col. 24 of Nishijima '649. Developing agent 1-3 falls within the scope of Formula (A-3) of the present invention. In addition, compound (II-3) in col. 11 of Yoshioka was added in a ratio of 0.02 mols per total mols of developing agents 1-3 and 24. Compound (II-3) of Yoshioka falls within the scope of Formula (A-4) of the present invention. Thus, Inventive Sample B falls within the scope of the claimed invention, because sample B contains a reducing agent of Formula (A-1), a reducing agent of Formula (A-3) and a compound of Formula (A-4).

5. Comparative Sample I was prepared similar to Comparative Sample A, except that 27.98 g of developing agent 1-3 was employed instead of 27.98 g of developing agent 1-24. In addition, compound (II-3) in col. 11 of Yoshioka was added in a ratio of 0.20 mols per total mol of developing agent 1-3. Comparative Sample I did not fall within the scope of the claimed invention, because Comparative sample I contained a reducing agent of Formula (A-3) and a compound of Formula (A-4), but no reducing agent of Formula (A-1).

6. Comparative Sample J was prepared similar to Comparative Sample A, except that compound (II-3) in col. 11 of Yoshioka was added in the ratio of 0.02 mol per total mol of developing agent 1-24. Comparative Sample J did not fall within the scope of the claimed invention, because Comparative Sample J contained a reducing agent of Formula (A-1) and a compound of Formula (A-4), but no reducing agent of Formula (A-3).

7. Comparative Sample K was prepared similar to Comparative Sample A, except that 4.20 g out of the total 27.98 g of developing agent 1-24 was replaced by 4.20 g of developing agent 1-3. Comparative Sample K did not fall in the scope of the claimed invention, because Comparative Sample K contained a reducing agent of Formula (A-1) and a reducing agent of Formula (A-3), but no compound of Formula (A-4).

8. Inventive Sample L was prepared similar to Comparative Sample A, except that 4.20 g out of the total 27.98 g of developing agent 1-24 was replaced by 4.20 g of developing agent 1-3. In addition, compound (II-3) in col. 11 of Yoshioka was added in a ratio of 0.01 mols per total mols of developing agents 1-3 and 1-24. Inventive Sample L falls within the scope of the claimed invention, because

Inventive sample L contains a reducing agent of Formula (A-1), a reducing agent of Formula (A-3) and a compound of Formula (A-4).

9. Samples A, B, I, J, K, and L were exposed and developed in the manner described beginning on page 203, par. 3 of the present application. The regression line was plotted without the minimum density and with the minimum density. The coefficient of determination R^2 when plotting without the minimum density and R^{2*} when plotting with the minimum density was measured employing the L*u*v* method in the manner described beginning on page 206, par. 2 of the present application. Samples A, B, I, J, K, and L were anatomically and physically evaluated in the manner described on page 207, par. 1 of the present application. The coefficients of determination R^2 and R^{2*} and the evaluation results are shown in the Table attached to this Declaration.

10. As shown in the attached Table, Inventive Samples B and L (which have a reducing agent of Formula (A-1), a reducing agent of Formula (A-3), and a compound of Formula (A-4)) received higher anatomical results and higher physical evaluation results compared to Comparative Samples A, I, J,

and K (which do not fall within the scope of the claimed invention). Thus, the attached Table demonstrates that a superior image is formed by employing a combination of a reducing agent of Formula (A-1), a reducing agent of Formula (A-3) and a compound of Formula (A-4).

11. I believe that the results shown in the attached Table are surprising and unexpected to those of skill in the art, because the cited references do not teach or suggest that a superior image is produced by employing a combination of a reducing agent of Formula (A-1), a reducing agent of Formula (A-3) and a compound of Formula (A-4).

12. In addition, the attached Table demonstrates that Inventive Samples B and L have ~~a~~ coefficients of determination R^2 and R^{2*} within the 0.998-1.000 range claimed in the present application, while Comparative Samples A, I, J, and K have ~~a~~ coefficients of determination R^2 and R^{2*} outside the claimed range. The attached Table demonstrates that Inventive Samples B and L have superior anatomical and physical evaluation results compared to Comparative Samples A, I, J, and K.

13. I believe that those of skill in the art would be surprised and find the results in the attached Table to be unexpected, because the cited references do not teach or suggest the criticality of the 0.998-1.000 coefficients of determination R^2 and R^{2*} claimed in the present application.

It is declared by undersigned that all statements made herein of undersigned's own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the U.S. Code; and that such willful false statements may jeopardize the validity of this Application or any patent issuing thereon.

Hiroyuki Yanagisawa

Hiroyuki Yanagisawa

Dated: This 11th day of January, 2007.

Attachment: Table with data for Samples A, B, I, J, K, and L

Sample	A	B	I	J	K	L
R2	0.891	1.000	0.755	0.924	0.887	0.998
R2*	0.877	1.000	0.738	0.921	0.874	0.998
Image quality						
Anatomical evaluation	77	92	76	83	77	91
Physical evaluation	79	91	81	84	78	90
Remarks	Comp.	Inv.	Comp.	Comp.	Comp.	Inv.

R2: Calculated from values of D=0.5, 1.0 and 1.5

R2*: Calculated from values of unexposed area(minimum density) and D=0.5, 1.0 and 1.5.

A Sample No. 110 of US 6,699,649 (Nishijima)

B In Sample A, 4.20 g of Developimg Agent 1-3 and 23.78 g of Developing Agent 1-24 were employed instead of 27.98 g of Developing Agent 1-24, and further Compound (II-3) described in Column 11 in US 6,413,712 (Yoshioka) was added at a ratio of 0.02 mol per mol of Developing Agent (the total of 1-24 and 1-3).

I In Sample A, 27.98 g of Developing Agent 1-3 was employed instead of 27.98 g of Developing Agent 1-24, and further Compound (II-3) described in Column 11 in US 6,413,712 (Yoshioka) was added at a ratio of 0.02 mol per mol of Developing Agent 1-3.

J In Sample A, Compound (II-3) described in Column 11 in US 6,413,712 (Yoshioka) was added at a ratio of 0.02 mol per mol of Developing Agent 1-24.

K In Sample A, 4.20 g of Developing Agent 1-3 and 23.78 g of Developing Agent 1-24 were employed instead of 27.98 g of Developing Agent 1-24.

L In Sample A, 4.20 g of Developimg Agent 1-3 and 23.78 g of Developing Agent 1-24 were employed instead of 27.98 g of Developing Agent 1-24, and further Compound (II-3) described in Column 11 in US 6,413,712 (Yoshioka) was added at a ratio of 0.01mol per mol of Developing Agent (the total of 1-24 and 1-3).